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动物分类学报

中国土粉蚧属一新种及一新纪录种 (半翅目, 粉蚧科, 根粉蚧亚科)

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摘 要 报道土粉蚧属 1 新种, 多裂土粉蚧 *Ripersidla plurostidatus* sp. nov., 及 1 中国新纪录种小印尼土粉蚧 *R. carolinensis* (Beardsley, 1966)。新种在形态上近似于 *R. hibisci* Kawai & Takagi, 1971, 但多格腺仅分布于腹部腹面, 腹脐 3, 5 个。模式标本保存在北京林业大学森林保护系昆虫标本室。

关键词 半翅目, 粉蚧科, 土粉蚧属, 新种, 新纪录种, 中国.
中图分类号 Q969.35

土粉蚧属 *Ripersidla* 在分类上隶属于半翅目 Hemiptera、蚧总科 Coccoidea、粉蚧科 Pseudococcidae 的根粉蚧亚科 Rhizoecinae, 为 Tinsley 于 1899 年以 *Ripersia rumicis* Maskell, 1892 为模式种所建立。其属级地位存有争议, 至今尚无定论。Hambleton (1974) 将其作为根粉蚧属 *Rhizoecus* 的异名处理, 后被 Ben-Dov (1994), Jansen (2001, 2003) 和 Williams (1996, 2004) 所采用; 而 Matile-Ferrero (1976), 汤 德 (1992) 和 Kozar, F. & Konczn Benedicty (2002, 2003) 仍将土粉蚧属 *Ripersiella* 作为一个独立的属。本文采用后种观点。该属种类均寄生在植物根部, 主要鉴别特征是虫体上具有双叉管腺, 而无三叉管腺。目前, 全世界已知 73 种 (Kozar F. & Konczn Benedicty, 2003), 我国已报道 5 种, 即芦荟土粉蚧 *R. aloes* (Williams *et* Pellizzari) (武三安, 2001)、贺兰土粉蚧 *R. hdanensis* Tang (汤 德, 1992)、木槿土粉蚧 *R. hibisci* Kawai *et* Takagi (Williams, 1996)、柑橘土粉蚧 *R. kondonis* (Kuwana) (黄邦侃, 1983) 和马氏土粉蚧 *R. maasbadi* (Jansen, 2003)。本文报道 1 新种和中国 1 新纪录种, 至此, 我国共有 7 种。

模式标本保存在北京林业大学森林保护系昆虫标本室。

多裂土粉蚧, 新种 Ripersiella plurostiolatus **sp. nov.** (图 1)

雌成虫体长形, 两侧近平行, 长 0.96~1.28 mm, 宽 0.38~0.52 mm。触角膝状, 5 节, 长约 0.2 mm。端节最长, 且着生有 3 长 1 短 4 根镰刀状感觉毛。单眼无。口器发达, 喙 2 节。足 3 对, 发达, 胫节端部下侧有 2 根粗刺。爪细长。后足转节+腿节与胫节+跗节几等长, 胫节长为跗节长的 1.2 倍。腹脐 3 或 5 个, 均近圆形, 突出。5 个时, 位于后胸和第 2、3 腹节腹板内, 后胸有 1 个, 第 2、3 腹节各有 2 个。3 个时, 第 2 腹节腹板 1 个, 第 3 腹节腹板 2 个。口器前之头部腹面有一浅硬化区, 其上着生有 2 根毛。背孔两对。尾瓣突出, 尾瓣毛 5 根, 腹面 1 根, 背面 4 根。肛环位于背末, 具有两列椭圆形环孔和 6 根环毛。三格腺分布体两面。多格腺分布于第 4~9 腹节腹面。三叉管无。双叉管有, 两种大小, 大管直径为多格腺的 3/5, 只分布体背, 数量 20 个左右, 以体缘为多; 小管直径为多格腺的 1/3 左右, 于第 4~9 腹节腹板上呈横列, 背面在第 4 腹节背板中区有 1 对, 尾瓣背面有 1 对, 有时在体缘有个别。管腺无。体毛分布背、腹面, 体缘者粗且长。

正模 ♀, 云南省勐腊县 (21.29°N, 101.33°E), 1993-08; 副模: 3♀♀, 云南省勐腊县, 1993-08; 2♀♀, 云南勐腊, 1994-04, 所有标本均利用 Tullgre 漏斗法采集。

新种在形态上近似于 *R. hibisci* Kawai & Takagi, 1971, 但新种多格腺仅分布于腹部腹面, 腹脐 3~5 个, 而后种多格腺分布于体两面, 腹脐 0~2 个。

词源: 种名由拉丁语“plur (多的)”和“ostiolatus (有裂孔的)”组合而成, 系根据新种有 3~5 个腹脐拟定。

小印尼土粉蚧 Ripersiella carolinensis **(Beardsley)** 中国新记录种 (图 2)

Rhizoecus cardinensis Beardsley (1966: 407), Williams & Watson (1988: 215), Williams (1996: 1395; 2004: 759).

Ripersiella carolinensis, Matile-Ferrero (1976: 303), 汤 德 (1992: 66), Kozar, F. & Konczn Benedicty (2003: 236).

雌成虫体长形, 长 1.1 mm, 宽 0.36 mm。触角

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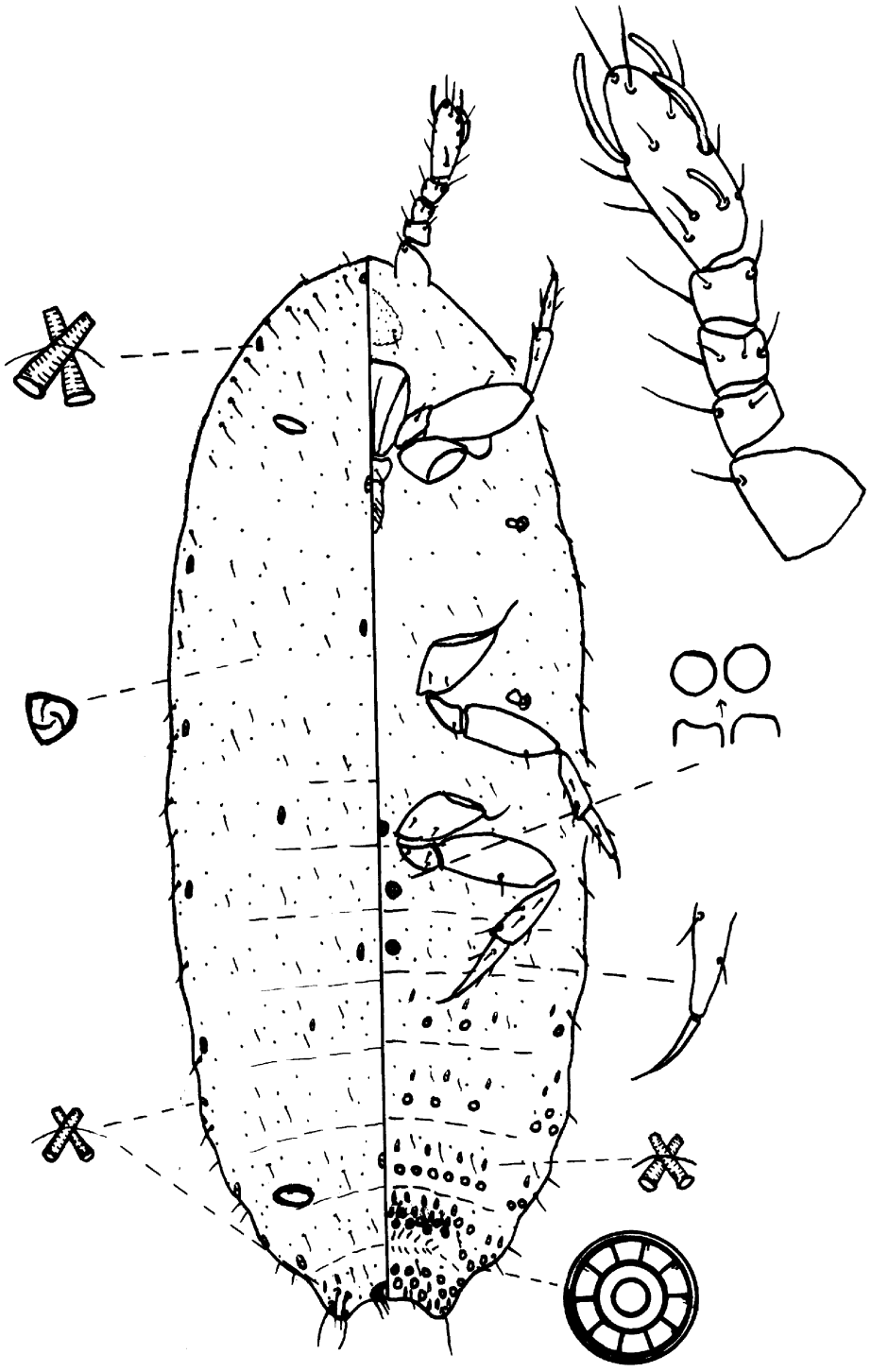

图 1 多裂土粉蚧雌成虫, 新种 *Ripersiella plurostiolatus* sp. nov., adult female

5 节, 长 0. 18 mm。端节最长, 且近端部着生有 3 根镰刀状感觉毛。单眼无。口器发达, 喙 2 节。足 3 对, 发达, 胫节端部下侧有 2 根粗刺。爪细长。转节+ 腿节与胫节+ 跗节几等长, 胫节长为跗节长的 1. 25 倍。腹脐 1 个, 突出且具网纹, 位于第 3 腹节腹板内。背孔两对。尾瓣突出, 尾瓣毛 3 根, 腹面 1 根细弱, 背面 2 根刺状。肛环位于背末, 具有两列椭圆形环孔和 6 根环毛。三格腺分布体两面。多格腺分布于第 4~ 9 腹节腹面, 在第 5 腹节背面有少量。三叉管无。双叉管有, 两种大小, 大双叉管数量不多, 20 个左右, 仅分布于背面; 小双叉管数量较多, 在第 4~ 9 腹节腹板多格腺前成横列。有的标本在阴门后还有一浅硬化片。体毛多, 分布体背、腹面, 且背缘体毛粗长。

分布: 中国 (云南、福建); 马来西亚, 巴布新几内亚、密克罗尼西亚联邦。

检查标本: 5 ♀♀, 云南省勐腊县, 1994-06, 利用 Tullgre 漏斗法采集; 5♀♀, 福建省顺昌县 (26.48°N, 117.48°E), 芦柑 *Citrus reticulata* 根部, 1983-09-13, 黄建采。

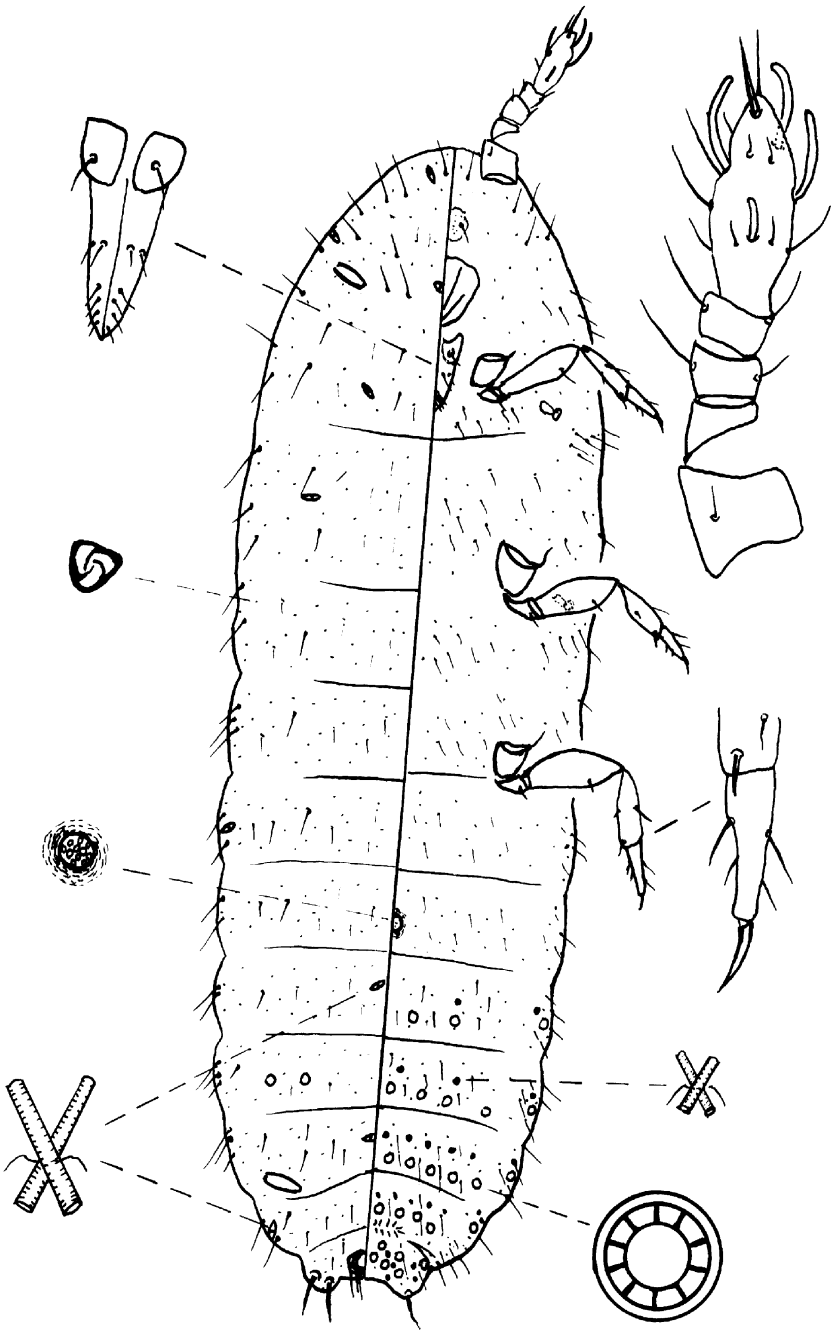

图 2 小印尼土粉蚧雌成虫 *Ripersidla carolinensis* (Beardsley), adult female

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A NEW SPECIES AND A NEWLY RECORED SPECIES OF GENUS RIPERSIELLA TINSLEY FROM CHINA (HEMIPTERA, PSEUDOCOCCIDAE, RHIZOECINAE)

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Abstract A new species to science and a new record species to China are described and illustrated. All type specimens are deposited in the Insect Collections of Department of Forestry Protection, Beijing Forestry University.

Ripersiella plurostiolatus **sp. nov.** (Fig. 1)

The body of adult female elongate, almost parallel-sided, 0.96-1.28 mm long, 0.38-0.52 mm wide. Antennae 5-segmented, about 0.20 mm long; apical segment longest, each with 4 sickle-like fleshy hairs. Eyes absent. Mouthparts developed. Three pairs of legs normally developed, claw slender and long; length of trochanter + femur equals to that of tibia + tarsus of hind legs, tibia 1.2 times as long as tarsus. Two pairs of ostioles. Three or fives circuli truncate-conical; when three, abdominal sternite II with one, abdominal sternite III with two; when five, metathoracic sternite with one, abdominal sternites II and III each with two. Frontal plate presents, with 2 setae. Anal ring with outer and inner cells and 6 setae. Anal lobes protrudent, with 4 dorsal and 1 ventral setae. Trilocular pores evenly-distributed both surfaces of body. Multilocular pores distributed on abdominal sternites IV-IX. Simple tubular duct absent. Tritubular cerores absent. Bitubular cerores of 2 sizes; the large one, ca. 20 in number, present on dorsum only; the small one numerous, forming transverse row on abdominal sterintes IV-IX.

Holotype ♀, Mengla County (21.29°N, 101.33°E), Yunnan Province, Aug. 1993. Paratypes: 3♀♀, the same data as holotype; 3♀♀, Mengla County, Yunnan Province, Apr. 1994. All type specimens are collected by Tullgren funnel method.

Remarks. This new species is similar to *R. hibisci* Kawai & Takagi, 1971, but can be easily distinguished by with 3 or 5 circuli and multilocular pores distributed only on venter of body, whereas the latter with 0-2 circuli and multilocular pores present on both surfaces of body.

Etymology. The new species is named after more than two circuli.

Ripersiella carolinensis **(Beardsley) New record to China** (Fig. 2)

Rhizoecus cardinensis Beardsley (1966: 407), Williams & Watson (1988: 215), Williams (1996: 1395; 2004: 759).

Ripersiella carolinensis, Matile-Ferrero (1976: 303), Tang (1992: 66), Kozar, F. & Konczn Benedicty (2003: 236).

Distribution. China (Yunnan, Fujian); Federated States of Micronesia; Papua New Guinea; Malaysia.

Specimens examined. 5♀♀, Mengla County, Yunnan Province, June 1994, collected by Tullgren funnel method; 5♀♀, Shunchang County (26.48°N, 117.48°E), Fujian Province, on roots of *Citrus retiaulata*, collected by HUANG Jian, 13 Sep. 1983.

Key words Hemiptera, Pseudococcidae, *Ripersiella*, new species, new record, China.